METHOD AND APPARATUS FOR ENHANCING EVACUATION OF BULK MATERIAL SHIPPER BAGS

Abstract

A bag is modified to include an air input port that allows inflation of an interply region of the bag. As the interply region inflates, an inner ply rises and becomes an advancing wall, raising the bulk material level in the bag, inclining the bottom of the bag, and pulling excess material away from the drain port all at the same time. In another embodiment, the bag is made with half the initial number of layers folded in half to create the upper and lower plies and the non-fold edges are bonded. Where corner drain ports are used, the bag can be arranged so that an interlayer bond parallel to the fold is parallel to a diagonal of a tote in which the bag sits and so that the interlayer bond is opposite the drain port to enhance bag evacuation. An additional optional feature of the invention is the inclusion of an integral filling conduit or snout on the top of the bag, a mouth of which acts as a fill port to ease filling of the bag. Junctures can be created in the interply region to guide its inflation. The invention can also be applied to fitted bags.